

21/50
S/07816/006/007014-014
B*2*/R207

21.2500

AUTHORS: Savitskiy, Ye. M., Terekhova, V. F., Burav, I. V., and Markova, I. A. ✓

TITLE: The phase diagram of the compounds of the magnesium-gadolinium system

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 1, 1967, 1734 - 1737

TEXT: The phase diagram of the compounds of the system Mg - Gd was drawn up on the basis of physico-chemical analyses (determination of the microstructure, hardness and microhardness, thermal and X-ray studies). The alloys were produced from distilled Mg (99.99 %) and metallic Gd (99 %). The alloy with 28 % by weight Gd forms a eutectic at 64 °C. The existence of four chemical compounds, Mg_2Gd , Mg_3Gd , Mg_5Gd and $MgGd$ was proved on the basis of microstructural and X-ray analyses. The compounds Mg_3Gd (68.2 % by weight Gd) and $MgGd$ (86.2 % by weight Gd) have a cubic lattice with the parameters 0.35 nm and 0.37 nm. The

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2736
S/078/6-7006/001/014/014
B-21/B20"

The phase diagram of...

compound Mg_2Gd (78 % by weight Gd) has a cubic structure of the $MgCu_2$ type. In alloys which are richer in Gd, the existence of the compound $MgGd_2$ is also assumed. The solubility of Gd in Mg at the eutectic temperature amounts to 2 - 2.5 % by weight Gd. The solubility at 700°C temperature is not higher than 1 - 1.5 % by weight Gd. The solubility of Mg in solid Gd was not determined owing to insufficient purity of the Gd metal. An addition of Gd to Mg increases the stability of the latter. The hardness of the alloy with 7 % by weight Gd amounts to 100 kg/mm². The phase diagram of the system magnesium-gadolinium is shown in Fig. 1. Ye. N. Kunenkova made the chemical analysis of the alloys. P. I. Kripyakevich assisted in the X-ray analysis. There are 2 figures and 5 references: 3 Soviet-bloc and 2 non-Soviet-bloc.

ASSOCIATION: Institut Metallurgii im. A. A. Baykova Akademii nauk SSSR
(Institute of Metallurgy named A. A. Baykov of the Academy of Sciences USSR)

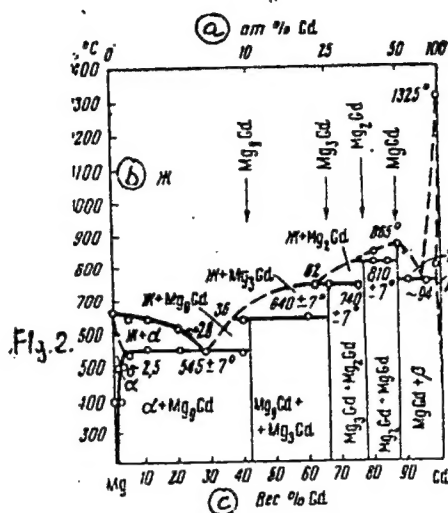
SUBMITTED: January 28, 1961

Card 2/3

The phase diagram of...

Legend to Fig.2: a) atom % Gd;
b) liquid; c) % by weight Gd.

S/078/61/006/007/014/014
B121/B207



Card 3/3

SAVITSKIY, Ye.M., doktor khim.nauk, prof.; TEREKHOVA, V.F., kand.tekhn.nauk;
MARKOVA, I.A., inzh.; FILIMONOVA, R.F., inzh.

Interaction of yttrium with other metals. Metalloved. i term. obr.
met. no.9:42-49 S '62. (MIRA 16:5)

1. Institut metallurgii imeni A.A.Baykova.
(Yttrium alloys—Metallography) (Phase rule and equilibrium)

SAVITSKIY, Yevgeniy Mikhaylovich, prof., doktor khim. nauk;
TEREKHOVA, Vera Fedorovna; BUROV, Igor' Vladimirovich;
MARKOVA, Inessa Aleksandrovna; NAUMKIN, Oleg Pankrat'yevich;
MUKHIN, G.G., red.izd-va; GUSEVA, A.P., tekhn. red.

[Rare-earth metal alloys] Splavy redkozemel'nykh metallov. Mo-
skva, Izd-vo Akad. nauk SSSR, 1962. 266 p. (MIRA 15:12)

1. Laboratoriya redkikh metallov i splavov Instituta metallurgii
im.A.A.Baykova (for all except Mukhin, Guseva).
(Rare earth metals)

L 11287-63

SWP(q)/EWI(m)/BDS AFTO/ASD JD/JG

ACCESSION NR: AP3004355

8/0078/63/008/008/1991/1993

AUTHOR: Terekhova, V. F.; Markova, I. A.; Savitskiy, Ye. M.

TITLE: Phase diagram of alloys of the yttrium-tin system

SOURCE: Zhurnal neorganicheskoy khimii, v. 8, no. 8, 1963, 1991-1993

TOPIC TAGS: yttrium-tin system, yttrium-tin-system phase diagram, yttrium-tin mutual solubility, yttrium-tin compound, yttrium-tin-alloy brittleness, yttrium-tin-alloy oxidation

ABSTRACT: Sixteen Y-Sn alloys with 0 to 100% Sn were melted from 99% pure Y and 99.9% pure Sn in an arc furnace in a helium atmosphere. The alloys were vacuum-annealed: Y-rich alloys (up to 40 wt% Sn), for 150 hr at 1200C; alloys with 40-70 wt% Sn, for 150 hr at 1000C; and Sn-rich alloys (up to 25 wt% Y), for 200 hr at 200C. Results of metallographic, x-ray diffraction, and thermal analyses and hardness tests were used as a basis for plotting the phase diagram of the system (see Fig. 1 of Enclosure). Alloys with 40-75 wt% Sn oxidize readily in air and are very brittle. On the Sn side there is probably a pseudoeutectic close to pure Sn. Microscopic and x-ray diffraction-pattern examination (the latter

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ACCESSION NO: AP3004355

carried out by P. I. Kriyakevich) indicates a possibility of the existence of two compounds whose structure has not yet been determined. The solubility of Sn in solid Y does not exceed 1 wt%. The maximum solubility of Y in solid Sn is 0.3 wt%. Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 18Feb63

DATE ACQ: 21Aug63

ENCL: 01

SUB CODE: ML

NO REF SOV: 001

OTHER: 001

Card 2/12

L 14417-63 EMP(q)/EWT(m)/BDS AFFTC/AED MB/JD/JG

ACCESSION NR: AP3004357

8/0078/63/008/008/1998/2000

AUTHOR: Markova, I. A.; Terekhova, V. F.; Savitskiy, K. M. 62
61TITLE: Phase diagram of the praseodymium-neodymium systemSOURCE: Zhurnal neorganicheskoy khimii, v. 8, no. 8, 1963, 1998-2000TOPIC TAGS: praseodymium-neodymium phase diagram, praseodymium-neodymium system, α -praseodymium, β -praseodymium, α -neodymium, β -neodymium, praseodymium-neodymium solubility, praseodymium-neodymium solid solution

ABSTRACT: The phase diagram of the praseodymium-neodymium system, based on the study of Pr-Nd alloys, is given in Fig. 1 of Enclosure. The alloys were melted from 97% pure Pr and 98% pure Nd in an arc furnace in a helium atmosphere. The impurities were other rare-earth metals and Cu, Fe, and Ca. The cast alloys were annealed at 600C for 20 hr. Thermal analysis, microscopic examination, x-ray diffraction patterns, and hardness tests showed that both modifications of Pr and Nd—the hexagonal low-temperature α -modification and the cubic high-temperature β -modification—form continuous series of solid solutions. The

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MARKOVA, I. A.,

"Phase diagrams of Y rare-earth metal alloys"

report presented at the Conf. on New Trends in the Study and Applications of Rare Earth Metals, Moscow, 18-20 Mar 63

L 25039-65 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(b) IJP(c) JD/JG/MLK

ACCESSION NR: AT4048702

S/0000/64/000/000/0124/0128

21
B-1

AUTHOR: Markova, I.A., Terekhova, V.F. (Candidate of technical sciences); Savitskiy, Ye. M. (Professor, Doctor of chemical sciences)

TITLE: Yttrium and the prospects for its use

SOURCE: ²⁷ Vsesoyuznoye soveshchaniye po splavam redidkh metallov, 1963. Voprosy* teorii i primeneniya redkozemel'nykh metallov (Problems in the theory and use of rare-earth metals); materialy* soveshchaniya. Moscow, Izd-vo Nauka, 1964, 124-128

TOPIC TAGS: yttrium physicochemical property, ¹⁸ distilled yttrium, yttrium alloy, yttrium alloy phase diagram, rare earth alloy

ABSTRACT: This is a review of studies published and conducted in the USSR and abroad on the properties of yttrium and its present and possible future applications. At the Laboratoriya redidkh metallov; splavov (Laboratory of Rare Metals and Alloys), studies are being conducted on the physicochemical properties of pure yttrium and its interaction with the basic industrial metals. Distilled yttrium of 99.9% purity and monocrystalline Y can now be investigated. Phase diagrams of yttrium with the basic industrial metals (over 20) have been published in the last 5 years. Those investigated at the authors' laboratory are listed

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L 25039-65

ACCESSION NR: AT4048702

and described: phase diagrams with non-mixability were determined for Y with metals of the IA, IIA and VA subgroups of the periodic system, as well as with Cr and U; eutectic phase diagrams are shown for Ti, Zr, Hf, Mo and W. A continuous series and a wide range of solid solutions are obtained only with the rare earth metals, scandium and thorium. In all other cases, the range of solid solutions is rather narrow, to 1.0% by weight. Phase diagrams of Y with La and Ce reveal the formation of chemical compounds in the solid YLa and YCe phase. On the basis of the physical properties of the pure metal and its phase diagrams, basic guidelines for the use of yttrium in industry may be projected. Its applications are listed, and its effect on high-melting metals, particularly V, Nb and Cr, is stressed. The addition of 1.0 wt. % Y to chromium, for example, will sharply decrease nitrogen diffusion in the latter, thus increasing thermal stability. The use of Y and its compounds in nuclear technology is also mentioned (U.S. source). Studies for new applications as superconductors or semiconductors are far from completed. Orig. art. has: 6 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 13Jun64

NO REF SOV: 003

ENCL: 00

OTHER: 001

SUB CODE: IC, MM

Card 2/2

L 11307-65 EWT(m)/EPP(c)/EWP(t)/EWP(b) Pr-4 JD/JG

ACCESSION NR: AP4043586

S/0078/64/009/008/2034/2036

AUTHOR: Markova, I. A.; Terekhova, V. F.; Savitskiy, Ye. M.

TITLE: Yttrium-erbium and yttrium-scandium alloys (B)

SOURCE: Zhurnal neorganicheskoy khimii, v. 9, no. 8, 1964, 2034-2036

TOPIC TAGS: yttrium erbium alloy, yttrium scandium alloy, yttrium erbium phase diagram, yttrium erbium system, yttrium scandium system, yttrium erbium alloy property, yttrium scandium alloy property

ABSTRACT: The yttrium-erbium and yttrium-scandium systems were investigated. Alloys were melted from 99.6% pure yttrium and 98% pure erbium (the scandium purity was not specified) in an ore furnace in helium atmosphere. The yttrium-erbium system forms a continuous series of solid solutions. The curves of composition dependence of hardness and resistivity are typical for a system with a continuous series of solid solutions. Both curves show a maximum at approximately 70% erbium. All the alloys have a hexagonal, close-packed lattice of the magnesium type. The yttrium-scandium system was studied by similar methods. In this system the components form a

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L 11307-65

ACCESSION NR: AP4043586

continuous series of solid solutions between isomorphic modifications. The results concerning the yttrium-scandium system were confirmed by other researchers. Orig. art. has: 3 figures.

ASSOCIATION: none

SUBMITTED: 01Feb64

ATD PRESS: 3103

ENCL: 00

SUB CODE: MM

NO REF SOV: 003

OTHER: 006

Card 2/2

SAVITSKIY, Ye.M.; TEREKHOVA, V.F.; BUROV, I.V.; NAUMKIN, O.P.; MARKOVA, I.A.

Alloys and compounds of rare-earth metals. Izv.AN SSSR.Neorg.mat.
1 no.10:1648-1659 O '65. (MIRA 18:12)

1. Institut metallurgii imeni A.A.Baykova, Moskva. Submitted
July 5, 1965.

L 33953-65 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(b) IJP(c) JD/JG
 ACCESSION NR: AP5006925 5/0181/65/007/003/0950/0952

AUTHOR: Vedernikov, M. V.; Markova, I. A.; Meshkova, G. N.

TITLE: Electrical resistivity and thermal emf of La-Co, La-Pr, and Pr-Nd alloys

SOURCE: Fizika tverdogo tela, v. 7, no. 3, 1965, 950-952

TOPIC TAGS: lanthanum cerium alloy, lanthanum praseodymium alloy, praseodymium neodymium alloy, continuous series solid solution, solid solution, rare earth metal, electrical resistivity, electrical conductivity, composition

ABSTRACT: No changes occurred in the electrical conductivity of La-Pr and Pr-Nd rare-earth metal alloys when the composition of the materials was varied from 0 to 100%. This linear dependence was unexpected, because, even though each alloy has two similar components, the atomic and crystallographic differences of these components are sufficiently marked to produce an increase of resistivity of 2-3 percent. Such an increase was actually observed in La-Co, the third rare-earth metal alloy investigated. The linearity of the dependence between conducti-

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ACCESSION NR: AP5006925

vity and composition moreover seemed to disagree with similar measurements performed on other continuous-series solid solutions whose resistivities as functions of composition have a convex curve with a maximum occurring at a component ratio near 50:50%. It is suggested that lattice damage in the mixing of components is responsible for the increased resistivity. It is therefore assumed that in the case of La-Pr and Pr-Nd some compensating mechanism comes into play which is perhaps connected with the magnetic moment of ions and consequently enhances conductivity. A study of the thermal emf versus composition of the three alloys showed that with small admixtures of the second component irregularities appear. It is conceded, however, that these might have been caused by insufficient purity of the samples. Orig. art. has: 2 figures. [ZL]

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Semiconductor Institute, AN SSSR)

SUBMITTED: 05Nov64

ENCLOSURE: 00

SUB CODE: SS,EM

NO REF SOV: 002

OTHER: 005

ATD PRESS 3209

Card 2/2

L 39712-65 RPF(c)/EWT(m)/EWP(b)/T/EWA(a)/EWP(w)/EWP(t) Pr-L IJP(c) JD/JH/JG

ACCESSION NR: AP5006396

S/0126/65/019/002/0290/0293

AUTHOR: Chechernikov, V. I.; Iuliu Pop; Markova, I. A.

TITLE: Magnetic properties of Er-Y alloys

SOURCE: Fizika metallov i metallovedeniya, v. 19, no. 2, 1965, 290-293

TOPIC TAGS: rare earth compound, yttrium compound, erbium compound, magnetic property, antiferromagnetism

ABSTRACT: Alloys were fused from 99.6% pure distilled yttrium and erbium containing the following impurities: $\text{Ca} \leq 0.04$, $\text{Cu} \leq 0.035$, $\text{Fe} \leq 0.06$, $\text{Tu} \leq 0.2$ and $\text{Ho} \leq 0.2$ wt %. The alloys were prepared in an arc furnace in a helium atmosphere. Before measurement they were annealed for 60 hours at 800°C . The results of microstructural, x-ray, and thermal analyses as well as the measurements of the hardness and electrical resistance indicate that erbium and α -yttrium form continuous series of solid solutions. Eight alloys of the Er-Y system were studied containing: 70.21, 64.67, 58.84, 38.14, 31.6, 9.81, 3.96 and 2 at. % yttrium and the remainder erbium. The results of the study indicate that alloys with a high Er content display paramagnetism of the Curie-Weiss type, associated with localized f-

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L 39712-65

ACCESSION NR: AP5006336

3
electrons. The collective s-d electron system becomes more important as the Y content increases. In alloys with a high Y content the paramagnetic Curie point falls below zero which indicates possible antiferromagnetism. This assumption agrees with the results of other workers who in diluted alloys of Y with the rare earth metals (Nd, Gd, Tb, Er, Ho, Dy) established the presence of antiferromagnetism. "In conclusion we thank Professor Ye. I. Kondorskiy for useful comments." Orig. art. has: 3 figures.

ASSOCIATION: Moskovskiy gosuniversitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 29Jul64

ENCL: 03

SUB CODE: MM

NO REF SOV: 002

OTHER: 004

Card 2/5

1. 39712-65

ACCESSION NR: AP5005336

ENCLOSURE: 01

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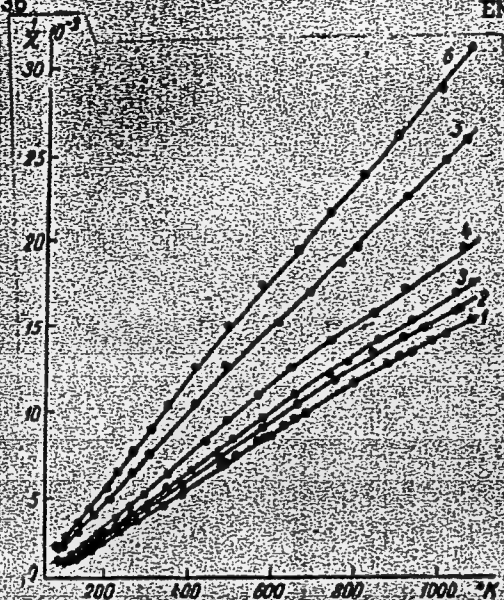


Fig. 1. Inverse susceptibility as a function of temperature for erbium (1) and alloys: 2--2; 3--3.96; 4--9.81; 5--31.6; 6--38.14 at. % Y.

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L 39712-65

ACCESSION NR: AP5006336

ENCLOSURE: 02

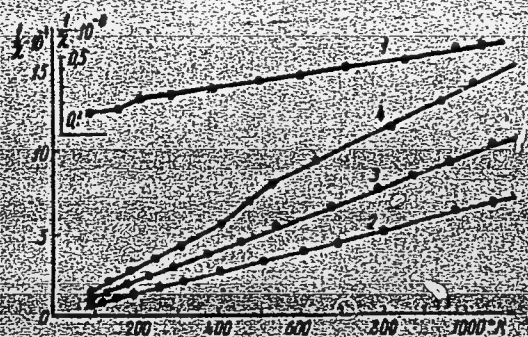


Fig. 2. Inverse susceptibility as a function of temperature for yttrium (1) and alloys: 2--58.84; 3--64.67; 4--70.21 at. % Y.

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L 39712-65

ACCESSION NR: AP5006336

ENCLOSURE: 03

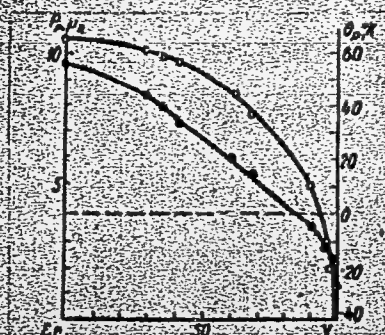


Fig. 3. Effective magnetic moment ($\bullet$) and paramagnetic Curie point ($\circ$) as functions of the alloy composition.

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ACC NR: AP7000806

SOURCE CODE: UR/0089/66/021/005/0420/0421

AUTHOR: Markova, I. A.

ORG: none

TITLE: All-Union conference on the phase diagrams of metallic systems

SOURCE: Atomnaya energiya, v. 21, no. 5, 1966, 420-421

TOPIC TAGS: metal alloy, binary alloy, ternary alloy, quaternary alloy, alloy phase diagram, phase diagram conference

ABSTRACT: A conference on the phase diagrams of metallic systems as a theoretical basis for development of alloys for modern engineering was held 7-9 June 1966 at the Institute of Metallurgy im. A. A. Baykov. The conference was attended by more than 250 representatives of 60 scientific and industrial organizations from 16 cities of the Soviet Union. The main reports, compiled in a special issue, represented a critical review of the known phase diagrams of systems based on refractory metals of the IV A, VA, VI A groups, rhenium, rare-earth metals, platinum, and light metals. Academician I. V. Tananayev, in his opening statement, noted the timeliness of the conference since the phase diagrams of the metal systems are the basis of physico-chemical analysis. Yu. V. Yefimov reported on the phase diagrams of binary vanadium systems. Ye. M. Savitskiy and A. M. Zakharov spoke on the phase diagrams of niobium systems and new directions in the design of new niobium alloys. I. A. Tsyganova and M. A. Tytkina

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ACC NR: AP7000806

discussed the phase diagrams of tantalum. I. I. Kornilov, L. I. Pryakhina and R. S. Polyakova reviewed the data of Soviet and non-Soviet research on the physico-chemical reactions between chromium, molybdenum and tungsten, and pointed out the basic directions of further research in the development of new engineering alloys with special properties, such as high heat resistance, thermionic emissivity, superconductivity, and high corrosion resistance. Such alloys are of primary importance for aircraft, rocket, electronic and nuclear engineering. On the basis of research done by Ye. M. Savitskiy and I. I. Kornilov, V. N. Svechnikov, Yu. A. Kocherginskiy, A. K. Shurin, and V. M. Pan, phase diagrams for niobium and almost all elements whose addition can promote the development of heat-resistant niobium alloys were plotted. Ye. M. Drits spoke on the phase diagrams of magnesium-base and aluminum-base alloys. A. E. Goldenberg reported on the phase diagram of the aluminum-beryllium-magnesium system. N. D. Nagorskaya discussed the phase diagrams of binary systems with beryllium. I. I. Kornilov and P. B. Budberg spoke on the phase diagrams of the titanium, zirconium, and hafnium systems. I. I. Kornilov and others described the interaction of titanium and zirconium with oxygen. V. Ya. Markiv and others discussed phase diagrams and crystal structures of compounds in the titanium-iron (cobalt, nickel) systems. K. B. Povarova reviewed the phase diagrams of rhenium. O. K. Khamidov and Ye. M. Savitskiy reported on the binary systems of rhenium with rare-earth elements. Yu. B. Kuz'ma described ternary systems of rhenium with the heat-resistant transition metals and carbon. L. I. Dashevskaya spoke on the interaction of rhenium with thorium, lanthanum, and praseodymium. V. P. Polyakova described the phase diagrams of platinum-group metals and the prospects of utilizing alloys on a base of these

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ACC NR: AP7000806

metals. V. F. Terekhova and Ye. M. Savitskiy reviewed the phase diagrams of rare-earth metals plotted in 1962-1965. V. S. Shteyn reported on the use of computers for plotting phase diagrams. [MS]

SUB CODE: 11/ SUBM DATE: none/ ATD PRESS: 5110

Card 3/3

ACC NR: AP700273-1

(A)

SOURCE CODE: UR/0126/66/022/006/0839/0842

AUTHOR: Shafigullina, G. A.; Chechernikov, V. I.; Markova, I. A.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosuniversitet)

TITLE: Magnetic properties of Dy-Y alloys

SOURCE: Fizika metallov i metallovedeniye, v. 22, no. 6, 1966, 839-842

TOPIC TAGS: dysprosium compound, yttrium compound, magnetic property, magnetic susceptibility, Curie point, magnetic moment

ABSTRACT: The article presents the results of an experimental investigation of magnetic properties of Dy-Y alloys throughout the range of concentrations in the temperature interval of from 100 to 1000°K in the presence of magnetic fields of various intensity. To this end, 9 alloys of this system, containing 5.7, 11.9, 18.7, 26.6, 35, 44.8, 55.8, 68 and 83 at. % Dy (with Y as the remainder) were obtained by multiple remelting in a helium-atmosphere arc furnace and vacuum annealing at 10^{-6} mm Hg for 70 hr at 850°C. Magnetic susceptibility was measured by the conventional ponderomotive method on using a magnetic balance. Heating to high temperatures was accomplished with the aid of a platinum resistance furnace, and the temperature

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UDC: 669.85/86:538.214

ACC NR: AP7002734

was measured by means of precalibrated Pt-PtRh and Cu-constantan thermocouples. The quartz cup containing the specimen and the thermocouple junction were in a uniform temperature field. The magnetic balance was calibrated in advance with respect to pure holmium (for $< 700^\circ\text{K}$) and nickel (for $700-1100^\circ\text{K}$). Findings: magnetic susceptibility χ and crystal lattice constants a and c change monotonically over the entire concentration range (Fig. 1). The pattern of temperature dependence of reverse susceptibility $1/\chi$ is linear, (Figs. 2, 3) thus making

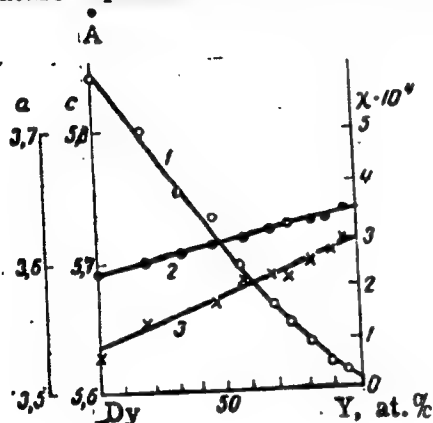


Fig. 1. Magnetic susceptibility χ (curve 1) and lattice constants a (curve 2) and c (curve 3) as functions of composition of the Dy-Y alloy at room temperature

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ACC NR: AP7002734

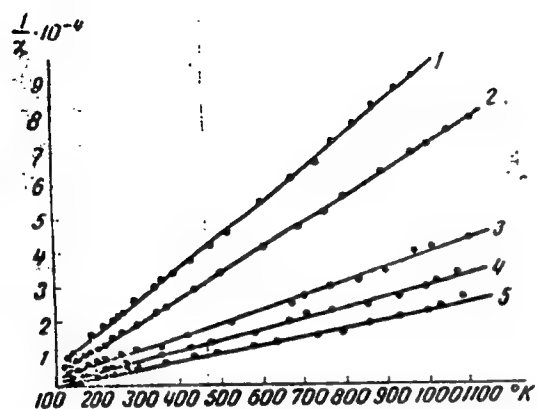


Fig. 2. Temperature dependence of reverse susceptibility of Dy-Y alloys:
1 - 5.7 at. % Dy; 2 - 11.9 at. % Dy; 3 - 18.7 at. % Dy; 4 - 26.6 at. % Dy; 5 - 35 at. % Dy. (Remainder: Y)

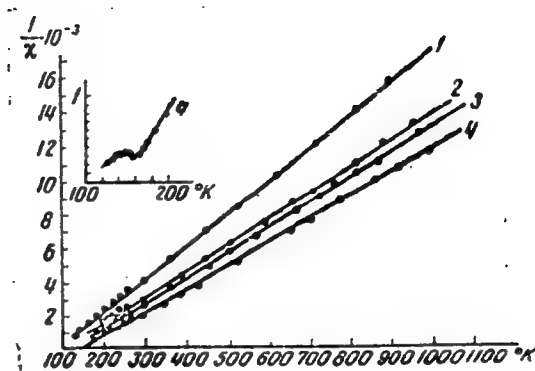


Fig. 3. Temperature dependence of reverse susceptibility of Dy-Y alloys:
1 - 44.8 at. % Dy; 2 - 68 at. % Dy; 3 - 83 at. % Dy (Remainder: Y)

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ACC NR: AP7002734

it possible to calculate the effective atomic magnetic moment p_p of the alloys as well as to determine the paramagnetic Curie point θ_p (Fig. 4). Within the investigated temperature range

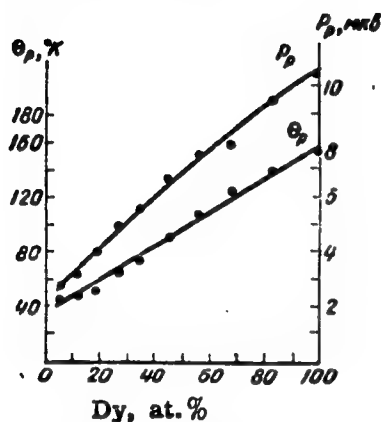


Fig. 4. Effective atomic magnetic moment p_p and paramagnetic Curie point θ_p as functions of alloy composition

the magnetic susceptibility of Dy-Y alloys follows the Curie-Weiss law. p_p and θ_p of the alloys

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ACC NR: AP7002734

vary monotonically as a function of the alloy composition, and the magnetic moment calculated per atom of dysprosium corresponds to the trivalent ion of this element in fundamental state. In the low temperature range there occurs a transition from antiferromagnetic to paramagnetic state, which shifts in the direction of low temperatures with increase in the magnetic field intensity (Fig. 5). All this indicates that the magnetic properties of Dy-Y alloys are chiefly

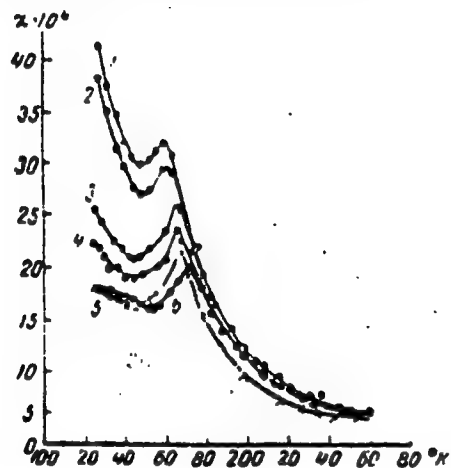


Fig. 5. Temperature dependence of susceptibility of alloy no. 9 (83 at. % Dy, remainder Y) as a function of magnetic field intensity H:

1 - 17,400 oe; 2 - 16,100 oe; 3 - 14,600 oe;
4 - 12,440 oe; 5 - 10,050 oe; 6 - 7550 oe

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ACC NR: AP7002734

conditioned by localized 4f-electrons, while in the antiferromagnetism region there apparently exists a spiral-like magnetic structure resembling the structure observed for pure dysprosium. "In conclusion the authors wish to express their gratitude to Professor Ye. I. Kondorskiy for his valuable comments." Orig. art. has: 5 figures.

SUB CODE: 11, 20/ SUBM DATE: 29Mar66/ OTH REF: 004

Card 6/6

MARKOVA, I.A.; NEPYSHNEVSKAYA, V.V.; STUKALOVA, L.A.

Materials of examinations for toxoplasmosis in children with
oligophrenia. Trudy Vor. med. inst. 51:111-116 '69.

(MIRA 18:10)

1. Kafedra infektzionnykh bolezney Voronezhskogo meditsinskogo
instituta (for Markova, Nepyshnevskaya). 2. Kafedra psikiatrii
Voronezhskogo meditsinskogo instituta (for Stukalova).

LEBEDEVA, Z.I.; MARKOVA, I.G.

Conductometric determination of Π -nitro- α -acetylarginoacetophenone.
Med.prom. 13 no.1:44-46 Ja '59. (MIRA 12:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze.
(ACETOPHENONE) (CONDUCTOMETRIC ANALYSIS)

LEBEDEVA, Z.I.; MARKOVA, I.G.

Quantitative determination of platyphyllin and seneciophyllin
in roots and blades of Senecio platyphyllus. Med. prom. 15
no.11:56-58 N '61. (MIRA 15:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevti-
cheskiy institut imeni S. Ordzhonikidze.
(ALKALOIDS)

MARKOVA, I.K. [translator]; ANUCHKIN, M.P., kand. tekhn. nauk, red.;
KAVKOVA, V., red.

[Pipes for the construction of main oil and gas pipelines
in the United States] Truby dlia stroitel'stva magistral'-
nykh gazo- i nefteprovodov v SShA. Moskva, 1963. 93 p.

(MIRA 17:9)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy proizvodstvennyy
komitet po gazovoy promyshlennosti. 2. Vsesoyuznyy nauchno-
issledovatel'skiy institut tverdykh splavov (for Markova).

L 8766-65 DWT(m)/EPP(c)/BMP(j) Ps-1/Pr-1 RM 57
 8/2982/63/000/044/0048/0047
 ACCESSION NR: AT4008699

AUTHOR: Guseva, V.I., Lukashevich, I.P., Susanina, O.G., Markova, L.M.,
 Troitskaya, N.I.

TITLE: Petroleum refining products as softeners-fillers for butadiene-styrene rubbers

SOURCE: Moscow. Institut naftkhimicheskoy i gazovoy promyshlennosti. Trudy*, no. 44, 1963. Naftkhiimiya, pererabotka nefi i gaza, 48-57

TOPIC TAGS: petroleum product, plasticizer, filler, butadiene styrene, rubber, butadiene styrene rubber filler, butadiene styrene rubber plasticizer, oil refining, oil refining product, low temperature resistant rubber, oil filled rubber, rubber softener, softener, rubber plasticizer

ABSTRACT: The use of a wide variety of petroleum products as softeners and fillers for rubbers was investigated. The physical-chemical properties of the petroleum fractions and the compounds separated from them were analyzed. It was found that aromatic hydrocarbons combine with rubber better than the paraffin-naphthenic type. A change from light to heavy aromatic hydrocarbons causes an increase in the internal friction coefficient and the tensile and rupture strength of the rubber, along with a

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ACCESSION NR: AT4008699

decrease in elasticity and frost resistance. Light aromatic hydrocarbons with a ring number of 1.7-2.0 and an aniline point no higher than 70C, as well as medium hydrocarbons with a ring number of 2.5-3.0 and an aniline point no higher than 60C, combine well with and guarantee high vulcanized rubbers. Paraffin-naphthenic hydrocarbons with a ring number of 2.5-3.5 and an aniline point no higher than 125C also give suitable results. Rubbers containing avtol 18 were compared with those containing other petroleum products. It was noted that rubbers with refined and deparaffined oils having a lower aromatic hydrocarbon content possess a lower brittleness temperature, higher elasticity and significantly lower stability than rubbers with avtol 18. However, they are deficient in the sense that they exude oil. The physical-mechanical properties of rubbers containing deasphalted tar oil are comparable to those containing avtol 18. Adding raffinate P to rubbers causes a high stability with large doses and high elasticity at increased temperatures. The use of softeners and fillers is necessary in order to obtain sufficiently high physical-mechanical properties and a high elasticity for rubbers. An example of a softener-filler is a secondary raffinate obtained by selective refining and removal of paraffin-naphthenate and naphthene-aromatic hydrocarbons. Several methods are proposed for obtaining products of this type; separation by cooling an

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ACCESSION NR: AT4008699

extracted phenol solution gives the best results. Orig. art. has: 5 tables.

ASSOCIATION: Institut neftekhimicheskoy i gazovoy promyshlennosti, Moscow. (Institute of the Petroleum Chemistry and Gas Industry)

SUBMITTED: 00

ENCL: 00

SUB CODE: MT, OC

NO REF SOV: 000

OTHER: 003

Card 3/3

12(2)

SOV/113-50--6 13

AUTHORS: Ayzenberg, A.S., Markova, I.V., Candidate of Technical Sciences, Sung Ch'eng-yi

TITLE: The Determination of the Optimum Finning of Air-Cooled Engine Cylinders

PERIODICAL: Avtomobil'naya promyshlennost', 1959, Nr 4, pp 11-14 (USSR)

ABSTRACT: The authors state that the amount of power required for driving the fan of a forced air-cooling system is an important factor and that the fins must have such a geometrical configuration that they provide an optimum cooling effect. The authors present formulas and graphs for calculating the finning of air-cooled engines. There are 1 diagram, 2 graphs and 6 Soviet references, 2 of which are Soviet.

ASSOCIATION: NAMI

Card 1/1

MARKOVA, I.V., kand. tekhn. nauk; POLUKHIN, Ye.S.

Specific results of experimental works on engines for the "Zaporozhets" automobile. Avt.prom. no.9:8-12 S '61. (MIRA 14:9)

1. Gosudarstvennyy soyuznyy ordena Trudovogo Krasnogo Znameni
nauchno-issledovatel'skiy avtomobil'nyy i avtomotornyy institut.
(Automobiles--Engines)

I 20777-65 EWT(d)/EWT(m)/EPF(c)/EWP(f)/T Pr-4 AFWL/FSD/SSD/AEDC(b)/
 ASD(p)-3/AFETR/AFTG(p)/ESD(t) WE
 ACCESSION NR: AP5001161 S/0113/64/000/009/0005/0007

AUTHORS: Markova, I. V. (Candidate of technical sciences); Polukhin, Ye. S.

On the knocking characteristics of air-cooled engines 2

SOURCE: Avtomobil'naya promyshlennost', No. 9, 1964, 5-7

TOPIC TAGS: air-cooled engine, knocking, combustion chamber, compression ratio, carburetor, piezoelectric transducer, isooctane, octane/ MeMZ-966 automobile, M motor fuel

ABSTRACT: The effect of the temperature level on the tendency toward knocking was studied in air-cooled engines using three different types of combustion chambers. The experiment was performed on the engine of an MeMZ-966 "Zaporozhets" automobile, with a compression ratio of 7.0. The power was regulated by adjusting the carburetor and the r.p.m., corresponding to the regime of maximum torque. Portholes were provided on the combustion chambers of all the cylinders for mounting piezoelectric transducers, and facilities for visual observation of the indicator diagrams were provided. The fuel used was a mixture of commercial isooctane and fuel-M. It was noted that the temperature level of the combustion

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1-20777-65
ACCESSION NR: AP5001161

2
chamber walls (varied from 135 - 260C) had a significant effect on the tendency to knock. On varying the temperature by 10C, the octane number specified for this fuel increased by about one point on the octane scale. The turbulence of the charge due to the combustion chamber installations was accompanied by a reduction in the tendency to knock. A change in the compression ratio from 6.5 to 8.0 resulted in an increase of the octane rating by 10 points. Orig. art. has: 1 formula, 3 tables, and 4 figures.

ASSOCIATION: NAMI

SUBMITTED: 00

SUB CODE: PR

NO REF SOV: 001

ENCL: 00

OTHER: 000

Card 2/2

SINYAKOVA, S.I.; MARKOVA, I.V.

Determination of the ultrasmall Pb, Cu, and Zn content of alkalies and acids with the aid of amalgam polarography on a stationary mercury drop. Zav.lab. 27 no.5:521-525 '61. (MIRA 14:5)

1. Institut geokhimii i analiticheskoy khimii imeni V. I. Vernadskogo Akademii nauk SSSR.

(Lead--Analysis)

(Copper--Analysis)

(Zn--Analysis)

5/075/63/018/003/006
E071/E436

AUTHORS: Sinyakova, S.I., Dudareva, A.G., Markova, I.V.,
Telalayeva, I.N.

TITLE: Determination of copper, lead, cadmium and zinc
impurities in particular pure indium and its salts
by the method of amalgam polarography with a stationary
electrode

PERIODICAL: Zhurnal analiticheskoy khimii, v.18, no.3, 1963, 377-384

TEXT: A method of amalgam polarography with a stationary
electrode (mercury drop) was developed for the determination of
zinc, cadmium, lead and copper impurities at concentrations down
to $10^{-6}\%$ in metallic indium and its salts. The method is based on
the extraction of indium (as bromide) with di-isopropyl ether from
5 M HBr. After concentrating the impurities in the mercury drop by
electrolysis at a controlled potential from potassium (sodium)
hydroxide and HCl solutions, they are determined from the curves of
anodic dissolution of the metals from the amalgam at a continuously
changing potential. Since indium is not completely removed by the
extraction, the effect of additions of complexone III, sodium
Card 1/2

Determination of copper ...

S/075/63/018/003/006
E071/E436

acetate and sodium tartrate on the shift of the indium wave to more negative potentials was investigated by the method of oscillographic polarography. The method was tested on a number of samples of metallic indium and indium iodide with satisfactory results. The maximum error does not exceed $\pm 1\%$. There are 6 figures and 4 tables.

ASSOCIATIONS: Institut geokhimi i analiticheskoy khimii im. V.I.Vernadskogo AN SSSR (Institute of Geochemistry and Analytical Chemistry imeni V.I.Vernadskiy AS USSR) Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V.Lomonosova (Moscow Institute of Fine Chemical Technology imeni M.V.Lomonosov)

SUBMITTED: June 26, 1962

Card 2/2

SEYAKOVA, D.I.; MARKOVA, L.V.

Determination of tin, lead, and copper impurities in
hydroxides. Reconv. anal. anal. result. 1 prepar. no. 1.

Determination of tin, lead, and copper impurities in
acids. Ibid.: 54-57

1. Institut general de chimie de l'Academie des Sciences de l'URSS
M. S. G. N.

L 28713-65 EWT(m)/EWG(m)/T/EWP(t)/EWP(b) LJP(c) JD/RWH

ACCESSION NR: AT5004072

S/3127/63/000/05-/0058/0062

AUTHOR: Sinyakova, S. I., Dudareva, A. G., Markova, I. V., Talalayeva, I. N.

TITLE: Determination of zinc, cadmium, lead, and copper impurities in indium and its salts

SOURCE: USSR. Gosudarstvennyy komitet po khimii. Metody analiza khimicheskikh reaktivov i preparatov, no. 5/6, 1963. Polyarograficheskoye opredeleniye ul'tramikropri-mesey s nakopleniyem ih na statsionarnykh rtutnykh ili tverdykh elektrodakh s posleduyush-chim rastvoreniyem (Polarographic determination of ultramicro-impurities with their accumulation on stationary mercury or solid electrodes and subsequent dissolution), 58-62

TOPIC TAGS: indium analysis, indium refining, zinc determination, cadmium determina-tion, lead determination, copper determination, amalgam polarography, mercury cathode

ABSTRACT: The method is based on the separation of indium by extraction with diisopro-pyl ether from a solution of hydrobromic acid followed by a determination of the impurities by the amalgam polarographic technique with their electrolytic accumulation on a stationary mercury cathode. The apparatus, reagents, and solutions employed are listed, and the determination procedure is described. The content of the impurities present in indium as determined by the method of additions is calculated by means of the formula

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ACCESSION NR: AT5004072

$$\% = \frac{C \cdot h_1 \cdot v_1 \times 100 \times 10^{-6}}{(h_2 - h_1) \cdot v_2 \cdot g}$$

where h_1 is the depth of the anode peak of the investigated solution, in mm; h_2 is the depth of the anode peak after the introduction of a standard solution of the impurity, in mm; C is the concentration of the impurity due to the addition, in $\mu\text{g/ml}$; v_1 is the volume of the solution being analyzed, in ml; v_2 is the volume of the solution after the introduction of the addition, in ml; and g is the weight of the sample in grams. The accuracy of the method varies between +3% and +15% depending upon the content of impurities. Orig. art. has: 3 figures, 1 table, and 1 formula.

ASSOCIATION: GEOKhI

SUBMITTED: 00Dec82

ENCL: 00

SUB CODE: IC, MM

NO REF SOV: 003

OTHER: 001

Card

2/2

MAKROVA, I.V.; USTINOV, V.P.

Moscow seminar on analytical continuity. 1980. 100 p.
19.10.1985. 100 p.

L 52288-65 EWT(m)/EWG(m)/T/EWP(t)/EWP(b) IJP(c) RWH/JD

ACCESSION NR: AT5012677

UR/2513/65/015/000/0164/0174 19

AUTHOR: Sinyakova, S.I.; Markova, I.V.; Galfayan, N.G. 18

TITLE: Electrolytic concentration of trace amounts of lead and copper at a stationary mercury electrode and their determination from catalytic currents 21 21 21 8+

SOURCE: AN SSSR. Komissiya po analiticheskoy khimii. Trudy, v. 15, 1965. Metody kontsentrirvaniya veshchestv v analiticheskoy khimii (Methods of concentrating substances in analytical chemistry), 164-174

TOPIC TAGS: electrolytic concentration, lead determination, copper determination, mercury electrode, catalytic current

ABSTRACT: A study was made of the electrochemical accumulation of lead and copper impurities in a stationary mercury electrode and their subsequent determination by means of the catalytic currents arising from the dissolution of the amalgam at a steadily changing potential in neutral KCl solutions containing oxygen or H_2O_2 . The influence of lead and copper ions, duration of preelectrolysis, concentration of oxygen and of the catalyst ion, temperature, and other factors on the magnitude of the catalytic current of H_2O_2 was studied. It was shown that the maximum potential of lead

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L 52288-65

ACCESSION NR: AT6012677

($E_{\max} \text{ Pb}$) is equal to -0.41 V and that $E_{\max} \text{ Cu} = -0.18 \text{ V}$ relative to the saturated calomel electrode, and that the magnitude of the catalytic currents depends linearly on the lead and copper concentration of the solution, with a 25% maximum deviation at copper concentrations equal to $5 \times 10^{-9} \text{ M}$ and lead concentrations of 5×10^{-10} to $1 \times 10^{-9} \text{ M}$. The magnitude of the catalytic current of H_2O_2 was found to depend on the ratio of the concentration of the metal ions to the concentration of hydrogen in the solution. A possible mechanism for the formation of this current is proposed. Orig. art. has: 6 figures, 4 formulas and 3 tables.

ASSOCIATION: Komissiya po analiticheskoy khimii, AN SSSR (Commission on Analytical Chemistry, AN SSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: IC, 00

NO REF SOV: 007

OTHER: 005

Jef
Cord 2/2

SINYAKOVA, S.I.; MARKOVA, I.V.; GOLFAYAN, N.G.

Electrolytic concentration of ultrasmall quantities of lead and copper
on a stationary mercury electrode and their determination from catalytic
currents. Trudy Kom. anal. khim. 15:164-174 '65. (MIRA 18:7)

L 37142-66 ENT(1)/T JK

ACC NR: AP6004971

(N)

SOURCE CODE: UR/0390/65/020/005/2571/3574

AUTHORS: Belokrylov, G. A. (Member of pharmacology dept, Member of microbiology dept); Markova, I. V. (Member of pharmacology dept, Member of microbiology dept); Ostrovskiy, A. D. (Member of pharmacology dept, Member of microbiology dept)

ORG: Department of Pharmacology /headed by Acting member AMN USSR, Professor V. A. Karasik (deceased)/ and Department of Microbiology /headed by Professor V. A. Karasik/, Leningrad Institute of Pediatric Medicine (Kafedra farmakologii i kafedra mikrobiologii Leningradskogo pediatricheskogo meditsinskogo instituta)

TITLE: Effect of adrenal hormones on organism resistance to staphylococcus aureus and colibacillus endotoxin

SOURCE: Farmakologiya i toksikologiya, v. 28, no. 5, 1965, 571-574

TOPIC TAGS: medical research, adrenal gland, cortisone, ACTH

ABSTRACT: Tests were performed to study the effect of adrenalectomy and injection of individual adrenal hormones on organism resistance to staphylococcus aureus exotoxins. Adrenalectomies were performed on 250 adult rats, which were divided into 6 groups, each receiving a daily injection of varying doses of hormones cortisone or hydrocortisone, DOCA, and adrenalin separately or of DOCA and adrenalin. Sham operations were performed to evaluate the

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UDC: 616.981.25+616.981.487-077.1:577.45.41

L 37142-66

ACC NR: AP6004971

trauma on resistance, and 30 medullectomies were performed. Thirty intact animals were injected with 10 mg/kg hydrocortisone and 45 with 50 units per g of adrenalin. Staphylococcal exotoxin used was prepared from a strain of white staphylococcus aureus and the colibacillus endotoxin was obtained according to the method of Messrobian from the strain 0111B₁H₂. Tabulated results show that the LD₅₀ of intact animals from colibacillus endotoxin is 500 times lower than that of intact animals. Injection of adrenal hormones does not change the low resistance to endotoxin, but only combined injection of cortisone and adrenalin restores resistance to control level. Tabulated results of tests with exotoxin show adrenalectomy does not affect resistance to exotoxin, and cortisone or DOCA increases resistance above the level of control animals. Medullectomy reduces resistance to endotoxin by 5 times. Injection of ACTH or hydrocortisone into intact animals does not influence their resistance to exotoxin, but markedly increases resistance to colibacillus endotoxin. Orig. art. has: 2 tables.

SUB CODE: 06/

SUBM DATE: 07Jul64/

ORIG REF: 001/

GTH REF: 001

Card 2/2

C MARKOVA I. V.

117

Hyperkinesia of mesencephalic origin, which arises in frogs under barbiturate narcosis. I. V. Markova (Leningrad Pediat. Inst.). *Fiziol. Zhur.* (J. Physiol.) 36, 101-5 (1950).—In the initial stage of barbiturate narcosis frogs exhibit enhanced mobility of 2 types: free motion (crawling, jumping) and a hyperkinesia which arises after the primary stages and which depends on intact condition of mesencephalon; this is exhibited in the form of inability of the animal to return from dorsal position, relaxation of skeletal musculature and lengthening of the latent period of reflex motions. As a result, the frog may be used as a test object for study of drugs which affect either the frontal sections of the brain or primarily the mid-brain locations. G. M. Kosolapov

100, 150 and 200 mg (the corresponding doses for the control animals were 100, 150 and 200 mg, respectively). In warm-blooded animals hyperkinesia can be considered as cerebral stimulation by barbiturates; there is no reason to assume that this phenomenon is connected merely with the disinhibition of the subcortical centres as a result of the cortical narcosis. (Russian) E. L. Pavlov

Chern. Pharmedol. Leningrad. Pediatrics. Medical Inst.

MARKOVA, I. V.

KARASIK, V.M.; MARKOVA, I.V.

Effect of morphine and of its esters on hyperkinesia induced by barbiturates. Biul. eksp. biol. i med. 42 no. 11:33 N '56. (MLA 10:1)

1. Iz kafedry farmakologii (sav. - chlen-korrespondent AMN SSSR V.M. Karasik) Leningradskogo pediatricheskogo meditsinskogo instituta.

(MORPHINE, effects,

on exper. hyperkinesia induced with barbiturates (Rus))

(BARBITURATES, effects,

exper. hyperkinesia, eff. of morphine & its esters (Rus))

(MOVEMENT DISORDERS, experimental,

hyperkinesia induced with barbiturates, eff. of morphine & its esters (Rus))

EXTRACTA MEDICA Sec 2 Vol 11/7 Physiology July 58

3323. RELATIONSHIP OF BARBITURATE HYPERKINESIS TO STAGE OF DEVELOPMENT AND FUNCTIONAL STATE OF THE CEREBRAL CORTEX (Russian text) - Markova I.V. Dept. of Pharmacol., Ped. Med. Inst., Leningrad - FIZIOLOG. Z. 1957, 43/12 (1187-1190) Tables 1 illus. 2

Barbiturates (hexobarbital and its Na derivative) produce hyperkinetic phenomena of subcortical origin in frogs, mice, rats and rabbits. These appear as fast contractions of separate muscle groups. The hyperkinesis is more marked in animals with underdeveloped forebrain (frogs). Decortication in rats, and ether (0.0007-0.014%) or paraldehyde (50 g. per kg.) decrease the dosage of barbiturates necessary for production of hyperkinesis. It is concluded that moderate depression of the CNS primarily of the cerebral cortex, facilitates hyperkinetic phenomena, probably brought about by the action of barbiturates upon subcortical structures.

Simonson - Minneapolis, Minn.

MARKOVA, I.V.

Effect of phenamine on motor irritation produced by barbiturates.
Biul.eksp.biol. i med. 46 no.10:71-72 0 '58 (MIRA 11:11)

1. Iz kafedry farmakologii (zav. - chlen-korrespondent AMN SSSR
prof. V.M. Karasik) Leningradskogo pediatricheskogo meditsinskogo
instituta. Predstavlena deystvitel'nyy chlenom AMN SSSR V.N.
Chernigovskim.

(AMPHETAMINE, effects
on barbiturate-induced motor excitability in animals
(Rus))

(BARBITURATES, effects
motor excitability, eff. of amphetamine in animals
(Rus))

MAKOVA, I.V.

Study of age-specific reactivity to barbiturates. Fiziol.shur.
45 no.12:1484-1488 D '59. (MIRA 13:4)

1. From the Department of Pharmacology, Paediatric, Medical Institute, Leningrad.

(BARBITURATES pharmacology)
(AGING effects)

MARKOVA, I.V.

Role of the adrenopituitary system in the sensitivity of animals of various ages to narcotics. Biul. eksp. biol. i med. 47 no.3: 57-60 Mr '59. (MIRA 12:7)

1. Iz kafedry farmakologii (zav. - chlen-korrespondent AMN SSSR prof. V. M. Karasik) Leningradskogo pediatricheskogo meditsinskogo instituta. Predstavlena deystvitel'nym chlenom AMN SSSR V. N. Chernigovakim.

(ACTH, effects,

on narcotic sensitivity in animals (Rus))

(NARCOTICS, effects,

sensitivity in animals, eff. of Acth (Rus))

MARKOVA, I.V. (Leningrad)

New data on the treatment therapy of acute barbiturate poisoning.
Klin.med. 38 no.9:27-34 8 '60. (MIRA 13:11)

1. Iz kafedry farmakologii (zav. - chlen-korrespondent AMN SSSR
prof. V.M. Karasik) Leningradskogo meditsinskogo pediatricheskogo
instituta.

(BARBITURATES—TOXICOLOGY)

MARKOVA, I.V.

Dependence of age-related differences in sensitivity to barbiturates
on the development of the hypophysial-adrenal system. Biul. eksp.
biol. i med. 50 no.10:87-91 0 '60. (MIRA 14:5)

1. Iz kafedry farmakologii (zav. - deystvitel'nyy chlen AMN SSSR
V.M.Karasik) Leningradskogo meditsinskogo pediatricheskogo instituta.
Predstavlena deystvitel'nym chlenom AMN SSSR V.N.Chernigovskim.
(ADRENAL GLANDS) (BARBITURATES)

MARKOVA, I.V.

Influence of adrenal cortex hormones on the development of
rigor mortis of the skeletal musculature. Biul. eksp. biol.
i med. 51 no.6:45-46 Je '61. (MIRA 15:6)

1. Iz kafedry farmakologii (zav. - deystvitel'nyy chlen AMN
SSSR V.M. Karasik) Leningradskogo pediatricheskogo meditsinskogo
instituta. Predstavlena deystvitel'nyy chlenom AMN SSSR V.M.
Karasikom.

(ADRENOCORTICAL HORMONES)
(RIGOR MORTIS)

MARKOVA, I.V.

Sorption properties of brain tissue in newborn and adult rats. Biul.
eksp. biol. i med. 52 no.8:110-111 Ag '61. (MIRA 15:1)

1. Iz kafedry farmakologii (zav. - deystvitel'nyy chlen AMN SSSR
V.M.Karasik) Leningradskogo meditsinskogo pediatricheskogo instituta.
Predstavlena deystvitel'nyy chlenom AMN SSSR V.M.Karasikom.
(BRAIN)

MARKOVA, I.V. (Leningrad)

Significance of the adreno-pituitary system for the function of the
hematoencephalic barrier. Usp.sovr.biol. 53 no.3:347-363 My-Je '62.
(MIRA 15:9)

(BRAIN) (ADRENAL CORTEX) (CAPILLARIES—PERMEABILITY)
(PITUITARY BODY)

MARKOVA, I.V.

Potential with phenamine and the prevention of reserpine
intoxication with aminazine in rats. Biul. eksp. biol. i med. 54
no. 7:49-51 J1 '62. (MIRA 15:11)

1. Iz kafedry farmakologii (zav. - deystvitel'nyy chlen AMN SSSR
V.M. Karasik) Leningradskogo meditsinskogo pediatricheskogo instituta.
Predstavlena deystvitel'nyy chlenom AMN SSSR V.M. Karasikom.
(PHENAMINE) (RESERPINE—TOXICOLOGY) (CHLORPROMAZINE)

MARKOVA, I.V.

Use of mineral corticoids in the prevention of the toxic effects of phenamine and adrenaline in adrenalectomized rats. Farm. i toks. 26 no.2:201-205 Mar-Apr '63. (MIRA 17:8)

1. Kafedra farmakologii (zav. -- deystvitel'nyy oblen AMN SSSR prof. V.M. Karasik) Leningradskogo pediatricheskogo meditsinskogo instituta.

MARKOVA, I.V.

Prevention of curare convulsions and paralysis with the use of a quaternary ammonium compound mespenal in adrenalectomized rats. Farm. i toks. 27 no. 1:36-42 Ja-F '64.

(MIRA 17:11)

1. Kafedra farmakologii (zav. - deystvitel'nyy chlen AMN SSSR prof. V.M. Karasik) Leningradskogo meditsinskogo pediatricheskogo instituta.

MARKOVA, J.

CZECHOSLOVAKIA

Capt Josef JANICEK CSc DVM, Vilma KALOUSOVA RNDr, M. VLCKOVA and J. MARKOVA, Veterinary Research Center (Veterinarni vyzkumne stredisko,) Prague.

"Preservation of Meat of Edible Animals from Secondary Effects of Atomic Radiation."

Prague, Vojske Zdravotnicke Listy, Vol 31, No 3, Jun 62; pp 129-135.

Abstract: Comprehensive review of various food preservatives and report on chlortetracycline studies i.v. to rabbits at 4 mg./Kg optimal time for meat preservation protection is 2 to 3 hours antemortem; same type experiments in heifers in Prague slaughterhouse, determining amount of antibiotic in tissues at various times after slaughtering; microbiologic assay was most sensitive; second part of study devoted to plastic fiber jackets for wrapping slaughtered cattle. In terms of mg. NH₃ best was i.p. chlortetracycline + rinsing in same antibiotic + fiber wrap. Two photographs, 2 tables, 4 graphs; 1 Czech and 15 Western references.

1/1

MARKOVA, Jaroslava, MUDr.

Parallels between shock and stroke. Neur. psychiat. česk.
18 no.4:281-287 July 55.

1. Z Neurologického oddeleni pro cervni onemocneni mozku v
Thomayerove nemocnici v Krci, primar doc. J. Budinova-Smela.

(CEREBRAL HEMORRHAGE, physiology

comparison with shock)

(SHOCK, Physiology

comparison with cerebral hemorrh.)

MARKOVA, Jaroslava, MUDr

Differential diagnosis of various apoplectic attacks and first aid.
Prakt.lek., Praha 35 no.8:169-172 20 Apr 55.

1. Neurolog. odd. pro cervni onem. mozku, Praha-Krc, prednosta doc.
Budinova-Smela.

(CEREBRAL HEMORRHAGE,
differ. diag. & first aid)

MARKOVA, J. (Praha 12, Bratri Capku 24)

2 Cases of temporary hemiparesis following cerebral arteriography.
Cesk. neur. 21 no.4:287-288 July 58.

1. Neurologické oddelení pro cévní mozků, Thomayerova nemocnice, před-
nosta doc. Dr. K. Jirina Budinova-Smela.

(ANGIOGRAPHY, CEREBRAL, compl.

temporary hemiparesis caused by cerebral arteriography.
case reports (Cz))

(HEMIPLEGIA, etiol. & pathogen.

cerebral arteriography causing temporary hemiparesis.
case reports (Cz))

PELESKA, Bohumil; MARKOVA, Jaroslava, Technicka spoluprace M. Hebl; M. Veselovska

Effect of pentamethonium & arfonad on the excitability of the
cerebral motor cortex. Rozhl. chir. 38 no.6:381-388 June 59.

1. Ustav klinicke a experimentalni chirurgie, Praha.
(AUTONOMIC DRUGS, pharmacol.)
(METHONIUM COMPOUNDS, pharmacol.)
(CEREBRAL CORTEX, pharmacol.)

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CHURCH-SLOVAKIA

FLIMBERG, J., FLIMBERG, B., and KLEBER, H., Institute for Clinical and Experimental Surgery (Jednotlivé klinické a experimentální chirurgie), Prague, Prof. Dr. S. ŠPACER, Dr. of Sciences, director.
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Abstract [Authors' English summary]: The development and dynamics of disorders in the central nervous system following cardiac arrest during surgery are evaluated. Of 22 patients five died and 17 cases described were selected to illustrate a transient damage. Severe and fatal damage, which occurred a transient damage, of C.N.S. may be restored to normal. There are treatment described stress the use of ganglioplexics and the antiedema therapy. Experience based estimates of the extent of the C.N.S. damage. Certain prognostic estimates of the extent of the C.N.S. damage. Improvement proceeds from are flexia through a complex picture with a predominant pyramidal symptomatology. Forty-five picture including 13 Czech and 2 Russian.

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86-00513R00103251

Diagnosis

CZECHOSLOVAKIA

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Abstract: Use of bariuntitanate, lithiumsulfate, and quartz crystals in medical ultrasonic devices is described. A-scanning and B-scanning are discussed. Intracranial parts where ultrasonic diagnostic methods can be used are described and the reliability of the results obtained by this method is evaluated. Best method for the diagnosis of tumors is discussed. Use of ultrasonic devices for the location of very small objects is described. 2 Figures, 54 Western, 9 Czech, 1 Polish, 1 Japanese, 1 East German reference.

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Vladimir N. Krukovich

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AUTHOR
TITLE

MARKOVA, K.I., SHEMYAKIN, E.I.

PA - 2207

The Propagation of Unsteady Disturbances in a Liquid Layer which is in Contact with an Elastic Half-Space (Rasprostraneniye nestatsionarnykh vozmushcheniy v sloye zhidkosti, nakhodyashchetsya v kontakte s uprugim poluprostranstvom).

PERIODICAL

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Received 3/1957
Reviewed 4/1957

ABSTRACT

The present paper deals with the linear investigation of the problem of the propagation of pressure waves in a layer of liquid resting upon an elastic half-space. Such waves can e.g. be produced by a spark discharge in water. The liquid layer investigated in the present instance, which has two boundary surfaces, is characterized by 2 parameters, ρ^0 - the density of the undisturbed liquid, and $1/c^0$ - the velocity of sound. The medium located below the lower boundary surface is characterized by the parameters λ , μ , and ρ . At $t = 0$ the entire system is assumed to be at rest, and at the moment $t = 0$ a source of the type of an "expansion center" begins to act at the point ($r = 0$, $z = -H$). The waves propagating here from the source reach the free surface and the boundary surface and they then produce a complicated field of waves of pressures within the liquid layer. This problem is here subdivided into the following 2 problems. 1) Reflection of the pressure wave on the free surface. 2) Reflections of the pressure waves on the elastic half-space. The mathematical solution of both part-problems is discussed in detail. The solution found is written down, it rigorously satisfies the equation as well as

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PA - 2207

The Propagation of Unsteady Disturbances in a Liquid Layer which is in Contact with an Elastic Half-Space.

the conditions made.

There follows the discussion of the solution. Here the line integral contained in the solution in the complex ζ -plane is investigated. These investigations are carried out as follows. First, the field is computed at certain points by means of the residuum method, on which occasion the original contour is deformed. Next, the line integral is computed by approximation methods. The integrals occurring here are also computed by the method of the stationary phase. The following general wave picture results in the liquid layer. Two conical waves move in the direction of the observer at point (r,z) , viz. an incoming and a reflected wave. If, however, the observer is near the line of separation between the liquid and the elastic medium, also the pressure waves produced by the "surface wave" move in his direction. The times of the arrival of these waves can be computed by means of the formulae found here. (7 illustrations)

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USSR / Forest Science. Forest Management.

K-3

Abs Jour : Ref. Zhur = Biologiya, No 17, 1958, No. 77504

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Inst : Not given

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Card 1/1

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